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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,520	10/24/2003	Alex Long	4006-271	9118

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ALEXANDRIA, VA 22314

EXAMINER
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MARCHESCHI, MICHAEL A

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/691,520

Applicant(s)

LONG, ALEX

Examiner

Michael A. Marcheschi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7,10-15,17-21,24-32,34-39,41-50,52-56 and 59-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-7,15,17-21,29-32,34-39,41 and 47 is/are allowed.
- 6) ☒ Claim(s) 10-14, 24-28, 42-46, 48-50, 52-56 and 59-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

The indication of the allowability of claims 42-46 is withdrawn in view of the new indefinite rejection below.

In the previous office action, the examiner rejected claims 10, 11, 24, 25, 60 and 61 under 35 U.S.C. 103(a) as obvious over Sung et al. (234) as applied to claims 1, 15 and 49 above and further in view of Chen et al. (865). For clarification of the record, the reference directed to Sung et al., above, should have actually been Lawing (401), as would have been evident from the rejection of claims 1, 15 and 49, which the above rejection is based on. However, any art rejections based on Lawing (401) are withdrawn because of the amendments to the claims.

Claims 1, 2, 4-7, 15, 17-21, 29-32, 34-39, 41 and 47 are allowable over the prior art of records because the prior art of records fails to teach or suggest a method of making an abrasive article which comprises all of the claimed specific steps. Specifically, all the removal steps.

Claims 10-14, 24-28, 42-46, 48-50, 52-56 and 59-64 would be allowable if amended to overcome the 112 rejections defined below.

Claims 10-14, 24-28, 42-46, 48-50, 52-56 and 59-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 is indefinite because it defines that the additional step takes place between the steps of forming of the base layer and the forming of the binding layer. However, claim 1,

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between these two steps, defines a removal step. Claim 10 does not define if the additional step is before or after the removal step, thus rendering the scope of the claim unclear.

Claim 12 is indefinite because it defines that the additional step takes place between the steps of forming of the binding layer and removing the base layer. However, claim 1, between these two steps, defines a substrate removal step. Claim 12 does not define if the additional step is before or after the substrate removal step, thus rendering the scope of the claim unclear.

Claim 13 is indefinite because it defines that the additional step takes place after removing the base layer. However, claim 1 defines two base layer removal steps for the base layer (partial removal, as in the case of “removing an upper portion” is a removal step). Claim 13 does not define which removal step is being referred to, thus rendering the scope of the claim unclear.

Claim 24 is indefinite because it defines that the additional step takes place between the steps of forming of the base layer and the forming of the binding layer. However, claim 15 between these two steps, defines a removal step, as well as other steps (filling and fixation). Claim 24 does not define if the additional step is before or after the removal step and before or after the other steps, thus rendering the scope of the claim unclear.

Claim 26 is indefinite because it defines that the additional step takes place between the steps of forming of the binding layer and removing the base layer. However, claim 15, between these two steps, define a substrate removal step. Claim 26 does not define if the additional step is before or after the substrate removal step, thus rendering the scope of the claim unclear.

Claim 27 is indefinite because it defines that the additional step takes place after removing the base layer. However, claim 15 defines two base layer removal steps for the base

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layer (partial removal, as in the case of “removing an upper portion” is a removal step). Claim 27 does not define which removal step is being referred to, thus rendering the scope of the claim unclear.

Claim 42 is indefinite because it defines that the additional step takes place between the steps of forming of the second base layer and the forming of the binding layer. However, claim 31, between these two steps, define a filling and a fixation step. Claim 42 does not define if the additional step is before or after filling and fixation steps, thus rendering the scope of the claim unclear.

Claim 44 is indefinite because it defines that the additional step takes place between the steps of forming the binding layer and removing the base layer. However, claim 31 defines removing two different base layers (first and second) and the examiner is unclear as to what base layer claim 44 is referring to, thus rendering the scope of the claim unclear. In addition, claim 31 defines a substrate removal step between the formation of the binding layer and the base removal step and claim 44 does not define if the additional step is before or after the substrate removal step, thus rendering the scope of the claim unclear. Finally, claim 31 defines a step of removing the padding particles but claim 44 does not define if the additional step is before or after the padding particle removal step.

Claim 45 is indefinite because it defines that the additional step takes place after removal of the substrate and the base layer. However, claim 31 defines removing two different base layers (first and second) and the examiner is unclear as to what base layer claim 45 is referring to, thus rendering the scope of the claim unclear. Finally, claim 31 defines a step of removing

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the padding particles but claim 45 does not define if the additional step is before or after the padding particle removal step.

Claim 48 is indefinite because it defines that the additional steps takes place between the steps of forming of the base layer and the forming of the binding layer. However, claim 47, between these two steps, define a removal step. Claim 48 does not define if the additional step is before or after the removal step, thus rendering the scope of the claim unclear

Claim 59 is indefinite because it is already defined in claim 47.

Claim 60 is indefinite because it defines that the additional step takes place between the steps of forming of the base layer and the forming of the binding layer. However, claim 49 between these two steps, defines a removal step, as well as other steps (filling and fixation). Claim 60 does not define if the additional step is before or after the removal step and before or after the other steps, thus rendering the scope of the claim unclear.

Claim 62 is indefinite because it defines that the additional step takes place between the steps of forming of the binding layer and removing the base layer. However, claim 49, between these two steps, define a substrate removal step. Claim 62 does not define if the additional step is before or after the substrate removal step, thus rendering the scope of the claim unclear.

Claim 63 is indefinite because it defines that the additional step takes place after removing the base layer. However, claim 49 defines two base layer removal steps for the base layer (partial removal, as in the case of “removing an upper portion” is a removal step). Claim 63 does not define which removal step is being referred to, thus rendering the scope of the claim unclear. In addition, is this additional step done before the mesh is removed?

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In all of the above indefinite rejection, the sequence of steps is not clearly defined in the claims, thus the claims should be amended to clearly define the sequence intended.

Claims 11, 14, 25, 28, 43, 46, 49, 50, 52-56, 61 and 64 are indefinite because they depend on indefinite claims.

In all of the above indefinite rejection, the sequence of steps is not clearly defined in the claims, thus the claims should be carefully amended to clearly define the sequence intended.

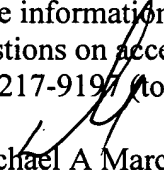
Applicant's arguments with respect to claims 1-64 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7/17/06  
MM

  
Michael A Marcheschi  
Primary Examiner  
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